USN

15ME835

Eighth Semester B.E. Degree Examination, Feb./Mar. 2022 **Product Life Cycle Management**

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

With a suitable diagram, discuss the various phases of Product Life Cycle Management. 1 (08 Marks)

Describe the various components of Product Life Cycle Management (PLM). (08 Marks)

Write a note on the opportunities and benefits of PLM. (08 Marks)

What are the major components of Product Data Management (PDM) Systems? Discuss. (08 Marks)

Module-2

List and evaluate the various steps involved in a Product Design Process. (08 Marks) 3

What are the objectives and benefits of a Good Product Design?

(08 Marks)

What do you understand by Concurrent Engineering? What are the advantages and (08 Marks) limitations of Concurrent Engineering?

What strategies can be adopted for recovery, once the Product life gets over?

Module-3

Explain in detail the need for New Product development. (08 Marks) 5

b. Discuss the various components involved in building a Decision Support System (DSS)

(08 Marks)

(08 Marks)

How can one estimate the market opportunities for a New product? (08 Marks)

What factors have to be considered in order to decide market entry? (08 Marks)

Module-4

Enlist and discuss the reasons for technology forecasting. (08 Marks)

Discuss briefly the various techniques that can be employed for technology forecasting. (08 Marks)

What are the three factors that have the maximum impact on product innovation and product (08 Marks) development with an Organization?

What are the tool commonly used in the Product Innovation Process in any Organisation?

(08 Marks)

Module-5

What are the advantages of Virtual product development? What models are generally used 9 for Virtual Product development? (08 Marks)

Write a note on Feature based Modeling and Parametric modeling.

(08 Marks)

Discuss the various Computer Aided Engineering (CAE) methods that can be employed to 10 analyse Virtual models of the Products. (08 Marks)

b. What is a Data Model? Explain in brief a few commonly used data models.

(08 Marks)